
THE SEVENTH REGIMENT'S HEADHOUSE ON PAPER AVENUE

• Cases of art: paintings, sculpture, prints, photographs)

• Locks, safes, bells, fireplace hardware and tools, and other miscellaneous objects

• Minor first-floor alterations, room-by-room:

- Library converted to "Regimental Museum" in 1911-14
- Equipment Room (originally Quartermaster's Room), re-fitted in 1895; altered again in 1909-11
- New spaces carved out of North and South Squad Drill Rooms in 1909-11:
- South: Adjutant's Room, with other smaller offices en suite
- North: Inner & Outer Committee Rooms
- Board of Officers Room "restored" in 1932, and re-dedicated as Colonel Emmons Clark Memorial Room

Second Floor

The Headhouse's second floor is primarily devoted to the "Company Rooms," which functioned as club/locker rooms for the Seventh Regiment's constituent company units. Originally ten in number, these units undertook the design and "decoration" of their particular rooms independently, utilizing many of the most highly-regarded designers and craftsmen of the day. Today, there are twelve company rooms instead of the original ten, after the formation of two additional companies in 1909 and the conversion of two rooms for their use in 1909-11. (Company L, originally the Non-commissioned Staff Room; Company M, originally the Adjutant's Room.)

All twelve Company Rooms are elaborately finished, with ornate floor, ceiling and wall treatments. Their extensive woodwork includes lockers for individual company officers, as well as wainscoting, fireplace mantels, and the like. Many of these rooms have been substantially redecorated over time, some more than once.

The following description outlines the general nature of interior treatments and fixtures on the second floor as a whole:

• Floors

- Hardwood flooring throughout, usually oak
- Generally parquet; at least one floor is wide-plank oak
- Some areas are carpeted

• Walls

- Flat plaster above elaborate woodwork (see "Woodwork" below)
- Plaster surfaces are finished with a wide range of decorative treatments (of those that remain

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THE SEVENTH REGIMENT ARMORY ON PARK AVENUE

visible, not all are original); finishes include stenciling, applied metal leaf, plaster friezes, reliefs, trompe l'oeil designs, and paper, fabric, and leather wall coverings

- Ceilings

- The ornate Company Room ceilings are enriched with beams, brackets, coffering, panels, strapwork, applied plaster ornament, as well as elaborate moldings and cornices. Other ceilings are flat plaster, some with molded cornices.
- Primary materials are wood, plaster, or both; some also with painted fabric panels. These are treated with a range of plain and decorative finishes; a number no longer preserve their original designs.

- Woodwork

- These second-floor spaces are characterized by generous amounts of rich woodwork, including mouldings, wainscoting, and the treatments of door and window openings, as well as a host of other fixed and moveable elements. Species used included oak, mahogany, ebony, and rosewood.

- Doors

- Massive, paneled wooden doors (single- and double-leaf) set in paneled surrounds with matching enframements and overdoors; French doors open onto Drill Room galleries.
- Many surmounted with transoms, including some with leaded and/or stained glass
- Bronze decorative hardware

- Windows

- Double-hung wood sash, set in paneled surrounds with matching enframements
- Some with stained-glass window screens

- Other woodwork

- Extensive paneled wainscoting in almost every room, often with hand-carved decorative elements
- Monumental fireplaces with mantels and overmantels (incorporating stone, tile, glass, and metalwork elements)
- Various types of built-in cabinetry, including storage lockers, display fixtures, and bookcases
- Decorative hardware and integral lighting fixtures of bronze, wrought iron, and glass
- The woodwork of many rooms also incorporates numerous decorative accents, including carvings, metal-work screens and panels, wooden screens, and ceramic tile, as well as many types of glass (stained, leaded, etched, beveled, mirror)



THE SEVENTH REGIMENT ARMORY ON PARK AVENUE

• Lighting fixtures

The current lighting system incorporates an array of ornate fixtures dating both from the original gas lighting and from the building-wide conversion to an electric system in 1911-12.

The second floor Company Rooms in particular preserve a number of the building's original gas fixtures, wired for electrical use.

- Fixture types include chandeliers, wall fixtures, and smaller fixed and free-standing lamps; they are executed in a variety of materials, including wrought iron, brass, bronze, and polished steel, with metal leaf, stained glass, and other embellishments

• Plumbing and heating fixtures

- Bathroom fixtures are typically non-original and non-historic
- Cast-iron steam radiators, some in radiator enclosures of wood and/or metal

• Other fixtures and furnishings

- Stairs, balconies, mezzanines, balustrades and railings, in metal and in wood
- Metalwork screens
- Bar counters

• Furniture

- Display cabinets, lockers and other storage equipment
- Built-in seating
- Tables, desks, stands
- Moveable seating

• Art/Artifacts

- Commemorative plaques, tablets, and displays
- Weapons, uniforms, flags, and other military equipment and memorabilia
- Military and hunting trophies
- Works of art (paintings, sculpture, prints, photographs)
- Clocks, piano(s), and other miscellaneous objects

• Major second-floor alterations:

- Most of the Company rooms have undergone renovation and redecoration, some more than once. As a result, surviving material may represent more than one period, and older finishes may be preserved beneath more recent ones.
- Two new Company Rooms were created from existing spaces in 1909-11, to accommodate the formation of two new companies within the Regiment:
 - Company L Room, originally Non-commissioned staff room
 - Company M Room, originally Adjutant's Room

THE SEVENTH REGIMENT ARMORY ON PARK AVENUE

- Iron stairways connecting second through fourth floors (ca. 1909-11)

Third Floor

The third floor contains spaces used for offices, classrooms, the armory dispensary, and a non-commissioned officers' club. The following descriptions outline the general nature of interior treatments and fixtures on the third floor as a whole:

- Floors
 - Hardwood flooring throughout, usually oak
 - Fields are plain or herringbone
 - Some areas are carpeted
- Walls
 - Flat plaster, generally above paneled wood wainscot (see "Woodwork" below)
 - Painted plaster. At least two rooms show elements of decorative treatments, include stenciling, applied metal leaf, and paper wall coverings
 - Some more recent partitions of gypsum wall board, sheet metal and other lightweight materials
- Ceilings
 - Most ceilings are flat plaster: some are beamed; one has applied plaster strapwork.
- Woodwork
 - The third floor's main rooms and circulation spaces all retain generous amounts woodwork, including mouldings, paneled wainscoting, and treatments of door and window openings. Species used include oak, mahogany, and pine.
- Doors
 - Massive, paneled wooden doors in single- and double-leaf configurations, with matching enframements and overdoors
 - Many surmounted with glazed transoms
 - Bronze decorative hardware
- Windows
 - Double-hung wood sash, set in paneled surrounds with matching enframements
- Other woodwork

 THE SEVENTH REGIMENT ARMORY ON PARK AVENUE

- Paneled wainscoting in main corridor, stairwells, and many rooms
- Diverse types of built-in storage and display fixtures, including cabinets, wardrobes, lockers, bookcases, and show cases
- At least one fireplace (with mantel, overmantel, and ceramic tile surround)
- Lighting fixtures
 - Historic wall and ceiling fixtures in wrought iron, brass, bronze, and glass
 - Recent fluorescent fixtures and track lighting
- Plumbing and heating fixtures
 - Bathroom fixtures are typically non-original and non-historic
 - Cast-iron steam radiators
- Other fixtures and furnishings
 - Stairs, balconies, and mezzanines, with balustrades and railings, in metal and in wood
 - Lockers, shelving, cabinets, and other storage equipment
 - Tables, desks
- Art/Artifacts
 - Commemorative plaques and displays
 - Weapons, uniforms, flags, drums, and other military equipment and memorabilia
 - Military and hunting trophies
 - Works of art (paintings, sculpture, prints, photographs)
 - Clocks, safes, and other miscellaneous objects
- Major third-floor alterations:
 - The third floor was significantly altered in 1909-11, when it was raised to full-story height from its original attic configuration. (The building's fourth floor was also added at that time, along with the north and south stairways connecting floors two through four.)
 - The third floor was remodeled ca. 1930.

Fourth Floor

The fourth floor houses the kitchen and dining rooms of the armory restaurant. The main corridor has been fitted out as a lounge, with seating, tables, and bar counter. The remaining space, under the mansard facing Park Avenue, contains two levels of locker rooms.

THE SEVENTH REGIMENT ARMOR 111 PARK AVENUE

The following descriptions outline the general nature of interior treatments and fixtures on the fourth floor as a whole:

- Floors
 - Oak strip (plain, herringbone) and wide-plank pine in dining areas
 - Terrazzo in kitchen, service, and circulation areas
- Walls
 - Flat plaster above paneled wood wainscot (see "Woodwork" below)
 - "Half-timbering" in main corridor and two principal dining rooms; wall paper in other dining rooms.
 - Glazed ceramic tile in kitchen
- Ceilings
 - Most ceilings are flat plaster (some with beam)
 - The main corridor has a low vaulted ceiling with transverse beams
 - Acoustical tile between beams in main dining room
 - Pressed metal ceiling with cove at in at least one other room.
- Woodwork
 - The woodwork in the main spaces of the fourth floor includes: "half-timbering," mouldings, wainscoting, treatments of door and window openings, as well as other fixed and moveable elements. Species used include oak and pine.
- Doors
 - Paneled single- and double-leaf wooden doors, with matching surrounds and enframements; some with multi-pane glazing
 - Bronze decorative hardware
- Windows
 - Double-hung wood sash, set in paneled surrounds with matching enframements
- Other woodwork
 - Paneled wainscoting in many rooms
 - Built-in storage and display fixtures, including kitchen cabinets, storage lockers, and show cases

THE SEVENTH REGIMENT ARMORY ON PARK AVENUE

- Lighting fixtures
 - Historic wall and ceiling fixtures: some in brass and wrought iron; others incorporating wagon-wheels, military drums, etc.
 - Later fluorescent fixtures
- Plumbing and heating fixtures
 - Bathroom fixtures are typically non-original and non-historic
 - Cast-iron steam radiators
- Other fixtures and furnishings
 - Stairs and railings, in metal and in wood
 - Metalwork gates
 - Kitchen equipment
 - Masonry chimney breasts and fireplaces
 - Bar counter
- Furniture
 - Storage lockers, display cabinets
 - Tables
 - Moveable seating
- Art/Artifacts
 - Commemorative plaques
 - Flags, military and hunting trophies
 - Portraits, prints, photographs
 - Clocks and other miscellaneous objects
- Major fourth-floor alterations:
 - Dining rooms, kitchen, and related spaces created in 1928.

Fifth Floor

The fifth floor was added to the Headhouse in 1928, set back from the Park Avenue and side-street facades. The southern two-thirds is occupied by a gymnasium. The northern third is occupied by smaller office and service spaces on the main level, with additional offices on a mezzanine level above.

The following descriptions outline the general nature of interior treatments and fixtures on the fifth floor as a whole:

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- Floors
 - Hardwood flooring throughout, usually oak; maple gym floor
- Walls
 - Flat plaster, with some areas of applied molding for a paneled appearance
- Ceilings
 - Painted metal
 - Exposed steel roof trusses
- Doors
 - Single- and double-leaf wood doors, some with glazing
 - Many recent metal-clad doors
- Windows
 - Glass block with metal-framed operable hoppers
 - Wire-glass interior sash at mezzanine
- Lighting fixtures
 - High-intensity floodlights in gymnasium; fluorescent fixtures elsewhere
- Plumbing and heating fixtures
 - Bathroom fixtures are typically non-original and non-historic
 - Cast-iron steam radiators
- Other fixtures and furnishings
 - Steel and wood stairs, with banisters
 - Steel lockers
- Art/Artifacts
 - Wall clock in main gym; other objects



THE SEVENTH REGIMENT ARMORY ON PARK AVENUE

DRILL HALL

Since the time of its completion in 1879, the Drill Hall was one of the largest unobstructed interiors in New York. Measuring roughly 200 feet x 300 feet, it has accommodated numerous social gatherings and sporting events as well as military exercises.

- Floor
 - Original Georgia pine floor
 - Re-laid 1911-13; now painted
- Walls
 - Painted brick masonry
 - Later cinderblock partitions
- Ceiling/roof structure
 - 11 wrought-iron elliptical arch trusses, with subsidiary upper trusses
 - Two levels of clerestory windows
 - Visible wood-plank roof sheathing
- Windows
 - The east facade of the Headhouse overlooks the Drill Hall with multi-pane wood-framed French doors at galleries, and with double-hung wood sash elsewhere.
 - Large arched window opening over Lexington Avenue vehicular entrance, with steel-framed windows with copper-clad mullions.
- Fixtures
 - Seating galleries:
 - Original (1879) bracketed gallery with balustrade on west wall at second-floor mezzanine level
 - Steel gallery with steel fascia and bronze railing on north, east and south walls (1911-13)
 - Large clock mounted on east wall
- Major Drill Hall alterations:
 - Major renovation of entire space in 1911-13, including:
 - New continuous spectators' gallery (with storage space below), new corner stairs, new clerestory windows, new lighting system, new interior paint scheme.
 - Window openings in north and south walls bricked-in, east wall window enlarged, and floor re-laid using original boards.



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- After 1952, storage and service areas beneath the spectator galleries were modified with cinderblock walls and partitions.
- The Lexington Avenue vehicular doorway was enlarged and a roll-down door installed in 1955.

For historic preservation guidelines and preservation-related aspects of use and design guidelines, please reference legislation and guidelines included in additional information package (available from E&Y upon request).

This package includes the following:

1. Building-specific materials:

New York City Landmarks Preservation Commission designation reports:

a. exterior (1967)

b. interior (1994)

National Register of Historic Places nomination/inventory (1975)

National Historic Landmark nomination (1986)

Historic American Buildings Survey information: HABS No. NY-6295

NYS DMNA report: "Park Avenue Armory: Rehabilitation of Decorative Plaster Ceilings"
(1997)

2. General regulatory materials:

NYC Landmarks Law

Section 14.09, NY State Historic Preservation Law

Section 106, National Historic Preservation Act

Secretary of the Interior's Standards for the Treatment of Historic Properties.

EXHIBIT N-2

ENVIRONMENTAL CONDITIONS DOCUMENT REVIEW

[Attached behind.]

N-2-1



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December 30, 2003

Kirsten Reoch
The Seventh Regiment Armory Conservancy
230 Park Avenue, Suite 618
New York, New York 10169

Re: Document Review
Seventh Regiment Armory

Dear Ms. Reoch:

AKRF, Inc. (AKRF) is pleased to present this review of existing documentation relating to environmental conditions at the Seventh Regiment Armory located at 643 Park Avenue in New York, New York. The Armory is located on the block bounded by Park and Lexington Avenues and East 66th and 67th Streets. AKRF has summarized the reviewed documentation, performed a limited site inspection on June 27, 2003, and provided recommendations addressing each environmental issue. A table including AKRF's notations from the reviewed documents is attached to this letter.

Hazardous Materials Section from Edwards and Kelcey Initial Screening

The hazardous materials section of an initial screening report completed by Edwards and Kelcey in 1999 was reviewed by AKRF. This screening included a radius search which identified the following:

- 3 RCRA generators located within 1/8-mile of the Armory, two of which were dry cleaning facilities and one was Hunter College, north-adjacent to the Armory, which generates a variety of hazardous wastes;
- 14 petroleum bulk storage facilities within a 1/8-mile of the Armory, including a listing for the Armory itself. The Armory was listed as having one Leaking Underground Storage Tank (LUST) overfill report (cleanup ceased February 13, 1989) and one tank test failure on record dating from March 27, 1997.
- Several other PBS facilities within the 1/8-mile radius were also listed for Leaking Underground Storage Tank and tank overfill reports.
- The NYSDEC Spills Information Database listed 46 Leaking Underground Storage Tank incidents within a 1/2-mile radius of the site, the majority of which were closed.

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Surrounding land use observed by AKRF in June 2003 included a dry cleaning facility opposite the Armory on East 66th Street.

The hazardous materials section indicated that maintenance activities may have been conducted on or adjacent to the drill floor. Scott Swenson, the building superintendent, indicated that a concrete slab is present below the drill hall wooden floor. Edwards and Kelcey noted floor drains in chemical storage areas and a duct-taped floor drain in the paint storage area in the basement. During a limited site inspection by AKRF in June 2003, roofing tar was noted leaking towards a patched floor drain in a basement storage room. Other potential environmental concerns noted in the hazardous materials section included regular application of pesticides along the exterior of the building.

Aboveground Storage Tanks (ASTs)

The most current Petroleum Bulk Storage (PBS) Registration Certificate provided to AKRF, dated February 5, 2002, listed the Armory as PBS ID #2-392049 and described one 4,000-gallon steel/carbon-steel tank (listed as tank # 002) at the property. An AST-INFO printout dated March 27, 1995, indicated that the on-site 4,000-gallon tank is an aboveground tank and contains fuel oil for heating. The tank was described in the AST-INFO printout as vaulted but having no internal or external protection, secondary containment, leak detection, or spill or overfill protection. No test dates were listed for the tank. The printout indicated that the tank was used for heating and could not be removed due to a dual fuel system required by Con Edison.

A memo dated August 23, 1999 from Daniel Travers, Director of Facilities Management and Engineering, indicated that this tank and associated piping had been tested and found to be "tight". The memo indicated, however, that the vent pipe was found not to be "tight". Accompanying paperwork from the tank test contractor, ECMS indicated that a new vent pipe needed to be installed and the lines needed to be cleaned. A TANKMAN printout regarding the 4,000-gallon oil tank indicated that a decision was made not to re-test the tank because there were no visible leaks within the system. It is not clear whether a new vent pipe was installed or whether the lines were cleaned, as was recommended by the tank test contractor.

According to the hazardous materials section of the Edwards and Kelcey screening report, a tank test failure was reported to the NYSDEC Spills Information Database on March 27, 1997. Also, according to the screening report, a tank overfill on January 6, 1989 was reported to the Leaking Underground Storage Tank (LUST) list. The tank overfill resulted in three inches of oil in the elevator shaft; the file was closed on February 13, 1989 following site cleanup. During a limited site inspection by AKRF in June 2003, the tank vault was noted to be a confined space; therefore this area was not inspected by AKRF.

A historic PBS Registration certificate dated November 17, 1997 included the same PBS ID number and listed three storage tanks at the facility. The 4,000-gallon tank #002 previously described was listed on this registration certificate as having been installed in July 1968. Two 275-gallon tanks (#003 and #004) were also listed on this registration certificate and were described as installed in August 1975. AST-INFO printouts dated March 27, 1995 and December 16, 1996 for tanks #003 and #004, respectively indicated that these aboveground tanks contained diesel fuel. The AST-INFO printouts for the two 275-gallon diesel tanks indicated that the tanks were used historically for an emergency generator, and were encased in a concrete block structure in the kitchen/basement area. Comments on the AST-INFO printout indicated

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that the tanks needed to be emptied of their contents prior to removal, and a diesel fuel odor was noted in December 1996. AST-INFO printouts indicated that these tanks were removed by the Office of General Services on August 3, 1999. A Substantial Tank Modification Application dated August 2, 1999 listed the PBS ID # 2-392049 and indicated that tanks #003 and #004 were closed or removed in August 1999. The tanks were described on this form as having no internal or external protection, secondary containment, leak detection, or spill or overfill protection. No test dates were listed for the tanks. It should be noted that part of the copy of this form provided to AKRF was obscured by a post-it note. Access to the former tank location was not available at the time of our limited site visit; the door was locked due to lead contamination in the kitchen.

Underground Storage Tanks (USTs)

A UST-INFO printout dated November 18, 1994 listed one 2,000-gallon steel underground gasoline storage tank at the Armory. The tank was described as having been installed in June 1960 with no internal or external protection, secondary containment, leak detection, or spill or overfill protection. The UST-INFO printout indicated that the tank was registered as a 2,000-gallon tank but was later determined to be two, 575-gallon tanks. The tanks were located along the north side of the building along 67th Street and are listed in the UST-INFO printout as having been removed on April 12, 1994. The printout also indicates that a soil sample taken in the excavation area contained constituents under the NYSDEC regulatory levels. Additional paperwork provided to AKRF regarding the removal of these two 575-gallon underground gasoline tanks included: Division of Military and Naval Affairs (DMNA) drawings dated April 10, 1992 showing tank and piping locations; construction permit # 93095 dated December 21, 1993 for tank removal activities under contract # D000838; the DMNA Project Manual provided to the contractor (Resource Conservation Corp. of Pompton Lakes, NJ) for the work, described as project #039192; a New York State Contract Reporter Insertion form describing the project as contract #039192; and a copy of soil sample analytical results for project #PAA-312, PO #PAA2479-94, from ExpressLab dated May 31, 1994. The soil analytical results were for sample #/ID C-1, collected on May 19, 1994, and analyzed for volatile organic compounds (VOCs) by EPA Method 8021. Methyl Tertiary Butyl Ether (MTBE) was detected at a concentration of 18 parts per billion (ppb); no other VOCs were detected. No information was provided regarding sampling locations within the tank excavation or field observations during tank excavation.

Lead

Documentation regarding lead contamination in the basement level firing range and kitchen areas dates back to 1993. Abatement records are incomplete, but indicate that the firing range and kitchen were cleaned in January and May of 1997. Clearance dust samples collected after the January cleaning indicate lead levels of 211 to 5,454 micrograms per square meter ($\mu\text{g}/\text{m}^2$) in the kitchen and 4,093 to 90,204 $\mu\text{g}/\text{m}^2$ in the firing range. Firing range lead levels after a firing in February 1997 were 298,787.88 $\mu\text{g}/\text{m}^2$ and kitchen lead levels in August 1997 were 11,279.07 $\mu\text{g}/\text{m}^2$. Kitchen lead levels after a flood in August 1998 were 629 to 673 $\mu\text{g}/\text{m}^2$.

The US Navy clearance standard for interior floors of firing ranges is 200 $\mu\text{g}/\text{m}^2$, according to Technical Manual NEHC-TM6290.9910. The US EPA/HUD clearance levels for residential housing is 40 $\mu\text{g}/\text{m}^2$. Lead in dust levels in the kitchen and firing range are considerably higher than these clearance levels.

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There is a possibility of lead contamination underneath the basement firing range. AKRF was not provided access to the shooting range area during the limited site inspection in June 2003, but was informed that the range has a solid concrete floor.

Limited testing of building components by DMNA, Allied Lead Services, CAI Environmental, Adirondack Environmental Services, Analytical Laboratories, Advanced Environmental Control, and Eastern Analytical Services indicate that lead paint was used throughout the building. US Department of Housing and Urban Development (US HUD) considers lead levels of greater than or equal to 1.0 milligrams (mg) lead per square centimeter (cm^2) of substrate toxic levels of lead. Kitchen walls, door jambs, and casings; red paint from a second floor office; the fifth floor hallway ceiling; the bullet trap; and window frames, radiators, and metal covers on the 3rd, 4th, and 5th floors were found to contain greater than 1.0 mg/cm^2 lead. The Clark Room ceiling was found to contain no lead.

Asbestos

Documentation regarding asbestos analyses and asbestos abatement dates back to 1994. Abatement records are incomplete, but indicate removal of asbestos-containing materials (ACMs) from the roof, basement, boiler room and rifle range. Asbestos bulk sample analysis records indicate that pipe and pipe fitting insulation, breeching insulation, roofing materials, window glazing, perimeter sealant and floor tiles are ACMs. Limited sampling of plaster wall and ceiling materials indicate that these materials are not ACMs.

A New York State Office of General Services (OGS) project manual and figure from February 17, 1993 indicate the removal of approximately 3,000 linear feet of exposed pipe insulation and 60 linear feet of breeching insulation from the administration basement. A note on the figure indicates asbestos above the ceiling was to be left in place. Asbestos abatement records consisting of air monitoring results and asbestos waste manifests from June and July 1999 may correspond to removal of portions or all of these materials.

Air sampling results indicate that portions of the "Armory Hanger Roof" were removed in May and June, 1994. No further documentation was provided for this abatement. Copies of Federal and State notification forms, which are not dated or signed, were transmitted from East Coast Services, Inc. to K. G. Roofing in September 1997. The forms indicated the removal of 6,500 square feet of roofing. A letter indicates that abatement was to start on November 3, 1997. Air monitoring results from November 4 through 10, 1997 and an asbestos waste manifest from November 10, 1997 indicated that portions or all of this roof abatement project was completed in 1997. No figures or descriptions indicating the locations of these two roof abatement projects were included in the documentation provided to AKRF. Roofing materials on the second floor roof, 67th Street side, were determined to be ACM in April 1998.

Based upon a review of the available documentation, it is apparent that asbestos-containing roofing materials and pipe insulation have been removed from the armory. Records indicate that ACMs remaining in the building may include asbestos above ceilings in the basement, window glazing and perimeter sealant, floor tiles, spray-on fireproofing, and roofing materials. Additional suspect ACMs observed by AKRF include vinyl floor tiles and associated mastics, cove base and associated mastics, and stair coverings and associated mastics. Testing of these materials was not included in AKRF's scope of services.

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Air Emissions

An air emissions compliance failure report dated 2002, reference #T009, indicated that the two boilers located in the basement of the Armory require air emissions permits or an operating certificate. The source of the report is unclear and no information was provided to AKRF concerning rectification of this compliance failure.

A Program Report dated January 20, 1999, issued by the State of New York Office of General Services, Design and Construction Group, proposed a scope of work that included removal and replacement of both boilers, and provision of boiler draft control, smoke capacity monitoring and fuel regulating valves in accordance with New York City Bureau of Air Resources guidelines. It is not clear whether this scope of work was ever completed at the Armory.

Hazardous Waste Disposal

EPA Hazardous Waste Generator ID #NY 0000303461 was allocated to the Armory on November 27, 1995. Hazardous waste manifests accompanying this paperwork indicated that the Armory disposed of the following wastes in the period January 1995 to June 1995: methanol, flammable liquids and solids, mercury, lithium batteries, empty drums, aerosols, corrosive liquids, and sulfuric acid.

Potable Water Quality

A water analysis report from Peneault Associates, Inc. dated October 23, 1996, indicated that a water sample collected in the first floor latrine slop sink contained no total coliform and no E. Coli bacteria.

Other Environmental Concerns

High-intensity discharge (HID) lamps were observed on the drill floor and fluorescent lamps were observed throughout the Armory by AKRF during our June 2003 limited site visit. HID and fluorescent lamps, including mercury vapor lamps, contain mercury. Fluorescent lighting fixtures observed in inspected areas may include PCB-containing components, including capacitors, and potting compounds. Electrical transformers may be located within the study building. Unless labeled as dry-type, transformers and wall mounted electrical panels and switchboards may contain PCB-containing oil. No evidence of leaks or stains was noted by AKRF during the June 2003 limited site visit.

Plaster Ceiling Stability

Although not relating to environmental issues, a report dated August 27, 1997 prepared by the Office of General Services describing limited plaster ceiling testing at the Armory was included in the file provided by the Seventh Regiment Armory Conservancy and was reviewed by AKRF. Several ceilings in the first through third floors of the building were found to have unstable ceilings due to a high sand content in the plaster. It was recommended that all areas with ceilings tested and found unstable, or untested and potentially unstable, be closed and that items such as chandeliers be removed or shored. A scope of work including ceiling restoration was proposed. It is not clear whether this scope of work was implemented.

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Conclusions and Recommendations

A 4,000-gallon aboveground fuel oil storage tank is present in the basement of the Armory. The EPA Oil Pollution Regulation, 40 CFR 112, requires that certain facilities storing oil and oil products prepare and implement a Spill Prevention, Control and Countermeasures (SPCC) Plan to prevent any discharge of oil into waters of the United States. Facilities subject to SPCC regulations are those where the aggregate aboveground oil storage capacity exceeds 1,320 gallons or where the total underground storage capacity is greater than 42,000 gallons. An SPCC Plan is a detailed, site-specific written description of how a facility's operation complies with the guidelines of SPCC regulation. The SPCC Plan should address operating procedures to prevent the occurrence of a spill and outline countermeasures to contain, clean up and mitigate the effects of an oil spill that impacts U.S. waters. Regulated oil storage facilities are also required to implement control measures to prevent a spill from entering U.S. waters, which can include the installation of secondary containment structures wherever practicable and effective. The New York State Department of Environmental Conservation should be contacted to confirm that the Leaking Underground Storage Tank (LUST) report for the facility is closed and the PBS registration should be reviewed to confirm it is correct and up to date. Aboveground tanks were historically located in the kitchen. AKRF recommends performing a visual inspection of the former tank location to check for evidence of leaks, overfills, and floor drains. If floor drains, or other exposure pathways are present, further investigation may be appropriate.

Documentation indicated that on 2,000-gallon underground gasoline storage tank was removed from the north side of the Armory in 1994. AKRF recommends obtaining a copy of the tank removal report from Resource Conservation Corp. including visual description and photographic documentation of tank excavation, if available.

The basement level firing range and kitchen are contaminated with lead dust from firing range operations. While these areas have been cleaned, lead in dust levels in these areas are still above US EPA/HUD and US Navy clearance standards. AKRF recommends re-cleaning and subsequent re-testing of the kitchen and firing range, and testing the basement near the firing range and kitchen to ensure that contamination has not spread outside of these areas. The appropriate clearance level will depend on the end use of these areas. AKRF recommends inspecting the firing range area to confirm the construction and integrity of flooring. If the floor is in good condition and provides an adequate barrier, there is no need for further action. If the floor is not in good condition, or if floor drains or drywells are present, additional investigation may be necessary to confirm soil quality under the firing range.

Records indicate that the vehicles may have been maintained on the drill floor. AKRF recommends inspecting underneath wooden flooring in several locations to confirm the presence of a concrete slab. If a concrete slab is present and has good integrity there is no need for further action. If no slab or a broken slab is present, soil samples may need to be collected from underneath the wooden drill floor to confirm soil quality. Floor drains were observed throughout the basement of the Armory by AKRF during our limited site visit in June 2003. AKRF recommends inspecting floor drains throughout basement and sampling of drywell sediments if the floor drains are found to be connected to drywells.

Documentation indicated that lead paint was used sporadically throughout the building. AKRF recommends performing a comprehensive, non-destructive lead paint survey of building components and maintenance of known and suspect lead-paint in good condition.

Kirsten Reoch

7

December 18, 2003

Asbestos records indicate that pipe and pipe fitting insulation, breeching insulation, roofing materials, window glazing, perimeter sealant and floor tiles are asbestos containing materials (ACMs). Abatement records indicate removal of ACMs from the roof, basement, boiler room, and firing range. AKRF recommends performing regular inspections and maintenance of known and suspect ACMs in good condition in accordance with applicable regulations. Prior to any renovation, demolition or roof replacement project, a NYC-certified asbestos investigator must inspect the affected areas to determine if the project will disturb ACMs. Affected ACMs must be removed prior to any construction or demolition activities.

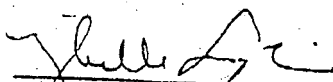
HID and fluorescent lighting was observed throughout the Armory. There was no evidence of leaks or stains from lighting fixtures and they do not currently present a potential hazard to building occupants. AKRF recommends periodic inspection to ensure lamp housings and protective barriers are in good condition. If disposed, HID and fluorescent lamps must be disposed of or recycled in accordance with applicable regulations.

An air emissions compliance failure report dated 2002 indicated that the boilers require air emissions permits or an operating certificate. AKRF recommends confirming that appropriate air emissions permits/operating certificates have been obtained for the boilers.

Plaster ceilings throughout the Armory were determined to be unstable due to a high sand content. AKRF recommends confirming that all identified and potentially unstable plaster ceilings have been restored to a safe condition.

We appreciate the opportunity to provide you with our services. If you should have any questions or comments, please do not hesitate to contact me at 646-459-3520.

Sincerely,
AKRF, Inc.



Michelle Lapin, P.E.
Senior Vice President

Reviewed Documents
7th Regiment Armory Conservancy
New York, New York

Issue	Document Date	Document Type	Document Author	Details
Environmental	12/21/1993	Project Manual	Division of Military and Naval Affairs	Removal of two underground gasoline tanks.
Environmental	11/18/1994	UST Info	Unknown	Tank removal
Environmental	2/24/1995	Manifest	Division of Military and Naval Affairs	Hazardous waste manifests.
Environmental	3/27/1995	AST Info	Unknown	Removal of 4,000-gallon aboveground tank canceled.
Environmental	11/27/1995	Haz Waste Notification	US Environmental Protection Agency	Acknowledgement of notification of hazardous waste activity.
Environmental	10/21/1996	Laboratory analyses	Pedreault Assoc.	Coliform and E. Coli results.
Environmental	12/16/1996	AST Info	Unknown	Tank removal.
Environmental	12/24/1996	Memo	Division of Military and Naval Affairs	Memo regarding removal of 2-275 gallon tanks from kitchen.
Environmental	11/6/1997	Memo	MNFE-EC	Memo outlining areas of environmental/safety/health issues. Landmark status, lead in range, asbestos throughout including pipe insulation, spray-on fireproofing, most of pipe in basement hallways has been replaced. 4000-gal fuel oil AST has had leaks, 2-275 gal generator diesel tanks in kitchen removed in near future. Air permit. Lead based paint - no testing. IAQ - NGB did a study and gave it to MNFE-FO.
Environmental	11/17/1997	PBS Registration	NYS Department of Environmental Conservation	Historical PBS Registration Certificate.
Environmental	8/2/1999	PBS Application	Division of Military and Naval Affairs	Removal of 2,275-gallon tanks.
Environmental	4/27/2001	Report	Edwards & Kelcey	Hazardous materials section from initial screening.
Environmental	2/2/2002	PBS Registration	NYS Department of Environmental Conservation	Registration for 4,000-gallon aboveground storage tank.
Environmental	none	Compliance Report	New York City	Boilers do not have New York City air emissions permit or operating certificate.
Asbestos	5/1/1984	specification	NYS Office of General Services	Repair roof on 66th street side of armory. No haz mat. Figure of work area.
Asbestos	11/1/1985	laboratory analyses	CT Male	Bulk sample in range area and shelter - unknown materials are positive.
Asbestos	10/3/1988	report	Hall-Kimbrell	Asbestos Assessment Report - Seventh Regiment Tennis Club. Pipe and pipe insulation throughout the tennis club determined to be ACM. Two samples of plaster - nonACM.

Issue	Document Date	Document Type	Document Author	Details
Asbestos	12/15/1988	laboratory analyses	CT Male	Air samples collected in mens shower, basement entrance, tennis club, tennis club lounge. No reference to project.
Asbestos	2/24/1989	project manual	NYS Office of General Services	Replace roofs (1,000 SF each) on 2 towers located at corners of Lex Ave, 66th and 67th Street. No haz mat.
Asbestos	6/9/1989	project manual	NYS Office of General Services	Remove asbestos from basement storage area behind rifle range.
Asbestos	8/29/1989	letter report	Kannon	Asbestos sample results following plywood wall erection. Air samples collected behind stooiling range.
Asbestos	11/15/1989	letter report	NYC GAS Shelters	November 15-17 removed 75 ft pipe insulation and wrapped 40 ft pipe insulation in basement. Air samples attached.
Asbestos	2/17/1993	project manual	NYS Office of General Services	Asbestos abatement project. Samples of pipe, pipe elbow, breaching, gate valve insulation in boiler room; pipe and pipe above outside boiler room, in corridor at ladies room, in laundry room, and kitchen.
Asbestos	2/17/1993	figure	NYS Office of General Services	Figure indicates removal of approx 3,000 LF of exposed pipe insulation and 60 LF of breaching insulation from administration basement. Note - asbestos above ceiling to be left in place.
Asbestos	5/5/1993	violation	NYS DOL	Violation for not maintaining surfaces free from accumulation of asbestos in workshop NW corner and Boiler room - steam pipes in both areas positive
Asbestos	10/18/1993	laboratory analyses	Calibrations	Asbestos results 3rd floor bathroom wall covering is negative.
Asbestos	10/19/1993	laboratory analyses	Calibrations	Asbestos results for 3rd floor bathroom wall covering and pipe insulation (negative)
Asbestos	10/29/1993	laboratory analyses	Calibrations	Asbestos results 3rd floor bathroom TSI pipe insulation, wall plaster and debris are negative
Asbestos	11/30/1993	laboratory analyses	Calibrations	Air quality samples collected in 3rd floor bathroom - all results within recirculation levels
Asbestos	4/25/1994	laboratory analyses	Calibrations	Asbestos results TSI pipe covering in first floor storage room, 67th street side - positive
Asbestos	5/4/1994	laboratory analyses	Calibrations	Asbestos results ceiling in finance department supply room ceiling is negative
Asbestos	5/23/1994	notification	Breathe Easy	OCS notification form for replacement of drill floor roof - 65,000 square feet between 5/23/94 and 8/3/94
Asbestos	5/23/1994	laboratory analyses	Rapid Environmental Management	Air sampling results for Armory hanger roof, 5th floor, east side - pre-abatement samples
Asbestos	5/31/1994	laboratory analyses	Rapid Environmental Management	Air sampling results for Armory hanger roof - during abatement samples
Asbestos	6/1/1994	laboratory analyses	Rapid Environmental Management	Air sampling results for Armory hanger roof - during abatement samples
Asbestos	6/2/1994	laboratory analyses	Rapid Environmental Management	Air sampling results for Armory hanger roof - during abatement samples

Issue	Document Date	Document Type	Document Author	Details
Asbestos	8/3/1994	laboratory analyses	Rapid Environmental Management	Air sampling results for Armory hanger roof - during abatement samples
Asbestos	3/23/1995	laboratory analyses	Calibrations	Asbestos lab results for 27 RAOC supply room - TSI pipe insulation is positive, ceiling and wall materials are negative
Asbestos	7/12/1996	laboratory analyses	Calibrations	Bulk samples of roof - 67th Street side - positive
Asbestos	7/25/1996	laboratory analyses	Calibrations	Roofing NE corner/roof/67th St side - 2nd and 3rd layers are positive, 1st layer neg by PLM only
Asbestos	9/24/1997	transmittal	East Coast Services	Transmittal for notifications, company license, meeting info
Asbestos	9/24/1997	notification	East Coast Services	NYS notification - not dated - removal of 6,500 SF of roofing
Asbestos	9/24/1997	notification	East Coast Services	EPA notification - not dated - 6,500 SF roofing
Asbestos	10/29/1997	letter	Division of Military and Naval Affairs	Project meeting notes - Contract D001032 - removal of 6,500 SF of roofing to start 11/3/97 and finish by 11/3/98
Asbestos	11/3/1997	laboratory analyses	Analytical Laboratories	Plaster in the Clark room ceiling on the 1st floor negative
Asbestos	11/4/1997	laboratory analyses	SciLab	Asbestos air monitoring results for roof acm removal by BSI Laboratories
Asbestos	11/4/1997	laboratory analyses	SciLab	Air monitoring results 11/4/97 - Roof abatement
Asbestos	11/5/1997	laboratory analyses	SciLab	Air monitoring results 11/5/97 - Roof abatement
Asbestos	11/6/1997	laboratory analyses	SciLab	PCM fiber results for roof work on 11/6/97 - BSI Consultants
Asbestos	11/10/1997	manifest	East Coast Services	Asbestos manifest for 407 (hard to read) cubic yards
Asbestos	11/10/1997	laboratory analyses	SciLab	Air monitoring results 11/10/97 - Roof abatement
Asbestos	11/12/1997	letter report	BSI Laboratories	Air monitoring results for roof removal on Nov 3-6, 10, 1997
Asbestos	12/3/1997	transmittal	KG Roofing	Transmittal for waste manifest for disposal of asbestos materials removed from roof
Asbestos	2/16/1998	transmittal	KG Roofing	Transmittal for roofing guarantee, application for payment. No haz mat.
Asbestos	4/21/1998	laboratory analyses	Analytical Laboratories	Roofing on the 2nd floor roof - 67th Street side, 2nd layer - positive
Asbestos	4/22/1998	chain of custody	Analytical Laboratories	COC for Roofing on the 2nd floor roof - 67th Street side, 2nd layer - positive (43)
Asbestos	4/24/1998	laboratory analyses	Analytical Laboratories	Asbestos sample of 5th floor gym ceiling. Negative
Asbestos	4/30/1999	manifest	Acoustic	Asbestos manifest for 83 cubic yards by Acoustic of Brooklyn
Asbestos	5/18/1998	laboratory analyses	CAI Environmental	Asbestos results for 3rd, 4th and 5th floor - window glazing, perimeter sealant, beige floor tile, and pipe and pipe elbow insulation ACM, plaster negative - 9 samples
Asbestos	6/11/1999	laboratory analyses	Quality Environmental Solutions & Technologies	Air monitoring results - no work area provided. 6/11/99, 6/15/99-6/18/99.
Asbestos	6/18/1999	manifest	ALAS	6/21/99, 7/13/99, 7/15/99-7/18/99
Asbestos	6/18/1999	manifest	ALAS	acm manifest - 30 bags
Asbestos	6/21/1999	manifest	ALAS	Asbestos manifest 30 bags by ALAS of Brooklyn
Asbestos	6/21/1999	manifest	ALAS	acm manifest - 28 bags
Asbestos	6/21/1999	manifest	ALAS	Asbestos manifest 28 bags by ALAS of Brooklyn
Asbestos	6/23/1999	manifest	ALAS	acm manifest - 28 bags
Asbestos	6/23/1999	manifest	ALAS	Asbestos manifest 28 bags by ALAS of Brooklyn

Issue	Document Date	Document Type	Document Author	Details
Asbestos	7/29/1999	manifest	ALAS	acm manifest - 40 bags
Asbestos	7/29/1999	manifest	ALAS	Asbestos manifest 407 bags by ALAS of Brooklyn
Asbestos	8/23/1999	Memo	MNFE	"Several areas have been abated including the boiler room, kitchen, and pipe tunnel along the 66th Street side. All asbestos has not been removed from the basement areas. Definitive testing has not been accomplished for the entire basement."
Asbestos and Lead	9/17/1999	transmittal	NYS Office of General Services	asbestos and lead test sampling reports for the steam distribution replacement project from NYS OGS to Roy Thomson of DMNA
Asbestos	1/18/2000	transmittal	NYS Office of General Services	Waste manifest for removal of asbestos at kitchen and steam tunnel by glovebag. References removal of two diesel fuel tanks.
Asbestos	8/3/2001	transmittal	Division of Military and Naval Affairs	Response for request for information from DMNAs to Conservancy - basement steam pipe replacement yielded 116 bags of acm waste on 4 manifests.
Asbestos	8/27/2001	manifest	AAC Contracting	Two bags of breaching body suits. No work area indicated.
Asbestos	None	license	East Coast Services	Copy of ECS asbestos handling license
Asbestos	None	specification	Unknown	Partial specification for asbestos abatement. No quantities of work area included.
Indoor Air Quality	1/24/1994	report	NGB	Report of indoor air quality issues in armory. Recommendations: Increase outside air, consistent temperature and humidity; replace mildew ac units, discontinue smoking, program for maintenance of ventilation diffusers and grills, repair damaged acm pipe in the mens shower, remove water damaged materials.
Indoor Air Quality	3/16/1994	Memo	OIC&C	Response to recommendations of IAQ report. Work orders/actions promised to comply will all except increase air.
Lead	12/15/1993	transmittal	NYARNG	Transmittal for range standard operating procedure, NAC proposal for lead cleanup, blank regulated activity notification form.
Lead	12/15/1993	SOP	Seventh Regiment Rifle Club	Standard Operating Procedures for firing range. Includes daily housekeeping for lead.
Lead	2/22/1994	proposal	NAC	Proposal for lead abatement in firing range
Lead	5/9/1994	Memo	NYARNG	Comments to conditions for reopening of range.
Lead	5/17/1994	Memo	Division of Military and Naval Affairs	Conditions for reopening of range. Rifle club is responsible for hazardous waste disposal.
Lead	12/16/1996	laboratory analyses	SclLab	Lead dust levels: on top of ice machine 4,109 and range floor at entrance 7,008 $\mu\text{g}/\text{ft}^2$
Lead	1/3/1997	laboratory analyses	Eastern Analytical Services	Lead dust levels: pistol range at fire point - 298,767.88 $\mu\text{g}/\text{ft}^2$.
Lead	1/8/1997	transmittal	Analytical Laboratories	Lead clearance results for dust samples - not attached. XRF for kitchen wall 2.5-4.2 mg/cm^2 and bullet trap 1 D-1.4 mg/cm^2 .

Issue	Document Date	Document Type	Document Author	Details
Lead	1/7/1997	letter	Division of Military and Naval Affairs	Lead testing in the kitchen on 12/12/96 were above permissible exposure level - lead in air samples not attached. Duplicate dust samples for kitchen and range attached. Ordered to close kitchen until further notice.
Lead	1/17/1997	laboratory analyses	Advanced Environmental Control	Kitchen lead levels on 1/17/97 - floor 4,513 $\mu\text{g}/\text{ft}^2$, top refrigerator 25,200 $\mu\text{g}/\text{ft}^2$. (original test for Allied Lead Services)
Lead	1/29/1997	laboratory analyses	Advanced Environmental Control	Kitchen (211-745 $\mu\text{g}/\text{ft}^2$) and range (4,093-90,204 $\mu\text{g}/\text{ft}^2$) lead levels on 1/29/97 - after cleaning. (for Allied Lead Services)
Lead	2/7/1997	letter	Division of Military and Naval Affairs	Letter reinforcing no further access or use of this range until it is in full compliance with NGB reg 385-15 and 29 CFR 1910.
Lead	2/21/1997	laboratory analyses	Eastern Analytical Services	Lead dust kitchen floor 11,279.07 $\mu\text{g}/\text{ft}^2$.
Lead	3/13/1997	laboratory analyses	Eastern Analytical Services	Lead dust floor range 9,743.88 $\mu\text{g}/\text{ft}^2$ side wall of range 5,040.94 $\mu\text{g}/\text{ft}^2$.
Lead	4/25/1997	laboratory analyses	Eastern Analytical Services	Lead dust floor range 8,745.91-14,261.36 $\mu\text{g}/\text{ft}^2$.
Lead	5/8/1997	letter report	Eastern Analytical Services	Clearance results for lead dust. No results attached to letter.
Lead	9/5/1997	letter report	Analytical Laboratories	Lead results from Clark Room Ceiling - no lead detected.
Lead	9/17/1997	letter	Seventh Regiment Rifle Club	Club tested air in range during firing - found elevated levels of airborne lead at firing line while shooting occurring. Request reopening of range. Question use of OSHA levels by DMEA for closing of range.
Lead	9/24/1997	letter	Analytical Laboratories	Pistol range should remain closed.
Lead	10/28/1997	laboratory analyses	Soil Lab	Lead dust levels in exhaust duct 210,900 $\mu\text{g}/\text{ft}^2$.
Lead	11/12/1997	letter	Division of Military and Naval Affairs	Letter to contractor. Work in delayed due to lead contamination in kitchen.
Lead	12/16/1997	laboratory analyses	Adirondack Environmental Services	Lead sample red paint from 2nd floor office - 26.6% lead
Lead	8/1/1998	laboratory analyses	Analytical Laboratories	Lead dust level on kitchen floor 629,673 $\mu\text{g}/\text{ft}^2$.
Lead	9/14/1998	laboratory analyses	Soil Lab	Lead dust level on kitchen floor 1,290 $\mu\text{g}/\text{ft}^2$.
Lead	9/17/1998	laboratory analyses	Division of Military and Naval Affairs	Lead on 5th floor hall ceiling and 643 Park kitchen floor. Hall ceiling positive.
Lead	1/22/1999	laboratory analyses	Advanced Environmental Control	Kitchen paint XRF results - masonry walls, wood door jambs and casings are positive (for Allied Lead Services)
Lead	4/7/1999	letter report	MNFE	Lead results at pistol range - kitchen lead levels on 1/22/97 1,325-25,200 $\mu\text{g}/\text{ft}^2$. After cleaning 1/31/97 kitchen levels from 211-5,454 $\mu\text{g}/\text{ft}^2$ and range from 4,093-90,204 $\mu\text{g}/\text{ft}^2$. Pistol range levels after firing on 2/4/97 238,787.88 $\mu\text{g}/\text{ft}^2$. Kitchen on 2/21/97 11,279.07 $\mu\text{g}/\text{ft}^2$. Kitchen after flood on 8/1/98 629,673 $\mu\text{g}/\text{ft}^2$. Floor next to oil tank after flood on 9/17/98 1,290 $\mu\text{g}/\text{ft}^2$. Recommendation - range and kitchen areas off limit until cleaned and retested.
Lead	9/17/1999	laboratory analyses	CAI Environmental	Lead results for 3rd, 4th and 5th floor building components - window frame, radiator insulation, radiator, and metal covers are positive.

Issue	Document Date	Document Type	Document Author	Details
Other	1/11/1995	construction estimate	NYS Office of General Services	Cost estimate for replacement of windows - no haz mat issues
Other	12/8/1997	Memo	Fordham U Homeless Project	Duct in glass block figures - no haz mat issues
Other	6/25/2002	Memo	NYARNG	Memo voicing concerns about dust and dirt in work areas and asking for guidance from OSCSG.
				Duplicate document.
				Duplicate document.
				Duplicate document.
				Duplicate documents.
Other	8/27/1997	Report	NYS Office of General Services	Rehabilitation of decorative plaster ceilings.
Other	1/20/1999	Letter Report	NYS Office of General Services	Boiler replacement project discussion.

EXHIBIT N-3

PHASE II ENVIRONMENTAL SITE ASSESSMENT

PHASE II ENVIRONMENTAL SITE ASSESSMENT

of

THE SEVENTH REGIMENT ARMORY
643 Park Avenue
New York NY 10169

performed for

Seventh Regiment Armory Conservancy
200 Madison Avenue, 5th Floor
New York, NY 10016

July 1, 2004

prepared by



Warren & Panzer Engineers, P.C.
228 East 45th Street-10th Floor
New York, NY 10017

WP PROJECT NO: 1199.01.01

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APPENDICES

Appendix A – Phase I Environmental Assessment
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INTRODUCTION

The Seventh Regiment Armory, constructed between 1877 and 1881 consists of two main sections, the Headhouse and the Drill Hall. The Headhouse is a 5 story, castle-like building, and the Drill Hall is a large open structure with an 80 foot high truss roof. The Drill Hall has open floor space (without columns) of approximately 55,000 square feet. The Drill Hall and the Headhouse are connected and occupy the entire city block of East 66th and East 67th Streets between Lexington and Park Avenues.

Warren & Panzer Engineers, P.C. (W&P) has been retained by the Seventh Regiment Armory Conservancy to investigate the property for the presence of Lead-based paint (LBP) and Asbestos-containing materials (ACM). A limited Phase I Environmental Assessment was conducted by AKRF in December 2003 (a copy is provided at Appendix A). The Phase I report identified locations of past asbestos abatement, lead dust contamination in the rifle range and several other areas with current potential asbestos and lead issues. The goals of W&P's Phase II investigation were to further characterize and quantify the types of ACM and LBP present throughout the entire Armory Facility.

The lead dust contamination investigation included an inspection and environmental sampling of the cellar areas in order to determine lead contamination from the rifle range. W&P conducted a full site survey and sample collection from June 14 to 16, 2004. Mr. James Scullin of W&P, a NYS and NYC licensed asbestos inspector and an EPA NYS licensed Lead Paint Risk Assessor conducted the survey and sampling. During the course of the survey a limited inspection for the presence of other environmental issues (such as PCBs and mercury) was also performed.

ASBESTOS INVESTIGATION

Drill Hall

Cellar Level – Spray on insulation material in the rifle range and fall out shelter area was sampled and analyzed. Analysis revealed the insulation to be ACM. The spray on material was located on columns and ceiling areas of the middle section of the rifle range. The insulation is in generally poor condition with several areas of loose, crumbling material. The amount of ACM present is approximately 10,000 square feet.

Main Level – Corrugated pipe insulation was observed on two lines of overhead pipes located in the storage rooms along the north side of the Drill Hall. Overhead pipes on the south side of the drill hall were bare and not insulated. Samples of the material from the north side were collected and analysis revealed the insulation to be ACM. The insulation is overall in good condition. The amount of ACM present is approximately 800 linear feet.

Headhouse

Cellar Level – Fiberglass insulation material was observed on overhead pipes throughout the entire east side of basement (with the exception of the kitchen area outside the Pistol Range). Plaster type insulation material was present on several elbow sections of the same pipe system that was covered with the fiberglass. The plaster type insulation was

sampled and no asbestos was detected. In the kitchen area outside the Pistol Range corrugated insulation was observed on overhead piping. The material was in poor condition with rips and holes. Analysis revealed the material to be ACM. The amount of ACM present is approximately 8 linear feet.

Along the west side of the basement asbestos containing corrugated insulation material was present in the ceiling cavity of the men's shower room and adjacent area. The total amount present could not be visually estimated. Approximately, 10 linear feet of ACM on overhead pipe insulation was observed in good condition, above the locker area's drop ceiling.

In the Boiler Room suspect insulation material was observed on the Boiler flues. The insulation was located underneath metal sheeting and was accessible near an access panel. Samples were collected and no asbestos was detected.

First Floor – Asbestos containing material on insulation of a vertical pipe riser was observed in the Field Officers and Staff Officers room. The material was in good condition and approximately 15 linear feet of ACM is present.

In the Adjutants office there is a small private bathroom with 9"x 9" floor tile. The material and associated mastic were sampled; analysis revealed that no asbestos was detected.

Second Floor – No asbestos containing materials present.

Third Floor – Inside Room 304 analysis of 9"x9" floor tile revealed the presence of asbestos greater than 1%, thus classifying the tile and associated mastic as ACM. The floor tile was in good condition and approximately 700 square feet was present. Also inside Room 304 and 312 transite like paneling was observed on the inside of the wooden radiator covers. Analysis of the paneling revealed the material to be ACM. The material was in good condition and approximately 4 square feet of asbestos paneling was present at each radiator (two radiators total).

Inside Room 307 analysis of 9"x9" floor tile revealed the presence of trace levels of asbestos (less than 1%) thus it is not considered ACM.

Approximately 25 linear feet of ACM on insulation material of a vertical pipe riser was present in the rear office area of Room 306. The material was in good condition.

Fourth Floor – Rooms along the west side of the floor are split into lower and upper levels. 1'X1' floor tile is present on both levels of the following rooms; HHC 1/107, Co. A 1/27, Co. B1/107, Co. C HHC, CSC 2/07 and 2BDE. Analysis of the floor tile and associated mastic revealed the material to be ACM. The floor tile is in good condition and approximately 16,000 square feet is present.

Fifth Floor – No asbestos containing materials present